**.**

**1. Factor completely.**25x2 + 80x + 64

A) Prime  
B) (5x + 8)2  
C) (5x + 8)(5x - 8)  
D) (5x - 8)2

**2.**

**Factor completely.**15z2 + 14z - 8

A) (15z + 4)(z - 2)  
B) (3z - 4)(5z + 2)  
C) Prime  
D) (3z + 4)(5z - 2)

**3.**

**Write the expression in lowest terms.**https://angel.grantham.edu/AngelUploads/QuestionData/5f3482e6-4cc4-46c7-ab6a-79fca2f8b20a/J422624223462326551Q.jpg

A) https://angel.grantham.edu/AngelUploads/QuestionData/5f3482e6-4cc4-46c7-ab6a-79fca2f8b20a/J422624223462326551Q.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/5f3482e6-4cc4-46c7-ab6a-79fca2f8b20a/430335146142126Q2134.jpg  
C) https://angel.grantham.edu/AngelUploads/QuestionData/5f3482e6-4cc4-46c7-ab6a-79fca2f8b20a/2NAW63166126A4J64403.jpg  
D) https://angel.grantham.edu/AngelUploads/QuestionData/5f3482e6-4cc4-46c7-ab6a-79fca2f8b20a/36252624132622366421.jpg

**4.**

**Solve by the square-root property.**(x + 9)2 - 3 = 0

A) 9 ± https://angel.grantham.edu/AngelUploads/QuestionData/5cf1705c-8be8-4109-9363-5b0c5543cab5/2H35441222Y511426752.jpg  
B) -6, 12  
C) -3 ± https://angel.grantham.edu/AngelUploads/QuestionData/5cf1705c-8be8-4109-9363-5b0c5543cab5/2H35441222Y511426752.jpg  
D) -9 ± https://angel.grantham.edu/AngelUploads/QuestionData/5cf1705c-8be8-4109-9363-5b0c5543cab5/2H35441222Y511426752.jpg

**5.**

**Factor completely.**x2 + 50x + 625

A) (x - 25)2  
B) Prime  
C) (x + 25)(x - 25)  
D) (x + 25)2

**6.** **Evaluate the expression. Write answer without exponents.**-100

A) 0  
B) -10  
C) 1  
D) -1

**7.**

**Perform the indicated operations. Give the answer in lowest terms.**https://angel.grantham.edu/AngelUploads/QuestionData/d181278c-086b-4441-a85d-26978fe7eb57/2336O614436145413524.jpg- https://angel.grantham.edu/AngelUploads/QuestionData/d181278c-086b-4441-a85d-26978fe7eb57/636423D01641RO6173C2.jpg

A) https://angel.grantham.edu/AngelUploads/QuestionData/d181278c-086b-4441-a85d-26978fe7eb57/54213K455325515H33W7.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/d181278c-086b-4441-a85d-26978fe7eb57/5B4436555114A4266126.jpg  
C) https://angel.grantham.edu/AngelUploads/QuestionData/d181278c-086b-4441-a85d-26978fe7eb57/32534653112635625334.jpg  
D) https://angel.grantham.edu/AngelUploads/QuestionData/d181278c-086b-4441-a85d-26978fe7eb57/282536352322MJ4K7656.jpg

**8.**

**Solve the equation.**https://angel.grantham.edu/AngelUploads/QuestionData/ec1e34cd-4c85-4fb8-910d-6382384290f8/14P3237343624234T622.jpg+ 3 = 8

A) -25  
B) -27  
C) 25  
D) 27

**9.**

**Factor completely.**x2 - 12xy + 36y2

A) (x - 6y)2  
B) (x- 6y)(x + 6y)  
C) Prime  
D) (x + 6y)2

**10.**

**Fill in the blank with either =, <, or > to make the statement true.**https://angel.grantham.edu/AngelUploads/QuestionData/1a2cdeea-b544-47f7-ba3a-2c0e1d903365/144213144544434242X3.jpg∙ https://angel.grantham.edu/AngelUploads/QuestionData/1a2cdeea-b544-47f7-ba3a-2c0e1d903365/35046412135134532T51.jpg\_\_\_\_\_\_ https://angel.grantham.edu/AngelUploads/QuestionData/1a2cdeea-b544-47f7-ba3a-2c0e1d903365/116O4Z51513635325W31.jpg

A) =  
B) >  
C) <

**11.**

**Evaluate the expression using order of operations.**2 ∙ 52

A) 100  
B) 250  
C) 10  
D) 50

**12.**

**Perform the indicated operations. Give the answer in lowest terms.**https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/535463537664335455H5.jpg+ https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/346B3666426Y65661203.jpg- https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/2353E3154614F2S361Y6.jpg

A) https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/464251112J31C6U1235C.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/11596216411343611224.jpg  
C) https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/3I545N5J441353716716.jpg  
D) https://angel.grantham.edu/AngelUploads/QuestionData/aad6262e-318c-48af-b681-dc29cf893860/361212Y53322W14044L5.jpg

**13.**

**Perform the indicated operation. Give the answer in lowest terms.**https://angel.grantham.edu/AngelUploads/QuestionData/bd7373e0-5184-451c-ac58-dd5f5c9a9be3/82373265246542123532.jpg÷ https://angel.grantham.edu/AngelUploads/QuestionData/bd7373e0-5184-451c-ac58-dd5f5c9a9be3/66225K3H434363531565.jpg

A) https://angel.grantham.edu/AngelUploads/QuestionData/bd7373e0-5184-451c-ac58-dd5f5c9a9be3/2I45225E435243663312.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/bd7373e0-5184-451c-ac58-dd5f5c9a9be3/J366732522656K556J25.jpg  
C) https://angel.grantham.edu/AngelUploads/QuestionData/bd7373e0-5184-451c-ac58-dd5f5c9a9be3/34253651543464231262.jpg  
D) https://angel.grantham.edu/AngelUploads/QuestionData/bd7373e0-5184-451c-ac58-dd5f5c9a9be3/3613P452344535476465.jpg

**14.**

**Simplify. Leave answer with exponent.**(5y)4 ∙ (5y)7

A) 25y11  
B) 25y28  
C) 5y28  
D) (5y)11

**15.**

**Use a calculator to evaluate the expression.**https://angel.grantham.edu/AngelUploads/QuestionData/749ff468-81eb-4e9a-ac17-43fc0b28c20a/E25P2R35114341152213.jpg11

A) 12.8333  
B) 5.4502  
C) 9.4286  
D) 0.1835

**16.**

**Find expressions for the Revenue, Cost, and Profit from selling x thousand items.**Item PriceFixed CostVariable Cost  
$7.00 $195,503 -3x2 + 3480x - 100

A) R = 7000x; C = -3x2 + 3480x + 195,403; P = 3x2 - 2780x - 195,403  
B) R = 7000x; C = -3x2 + 3480x + 195,503; P = 3x2 - 2780x - 195,403  
C) R = 7000x; C = 3x2 + 3480x + 195,403; P = -3x2 - 2780x - 195,403  
D) R = 7000x; C = -3x2 + 3480x + 195,403; P = 3x2 - 2780x - 195,503

**17.**

**Write the rational exponent expression as an equivalent radical expression.**(-3x)-1/3

A) 3 https://angel.grantham.edu/AngelUploads/QuestionData/1165d578-eea8-4b7f-a14a-451d978e3e30/52026GY5525331O44146.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/1165d578-eea8-4b7f-a14a-451d978e3e30/251365432386136F5622.jpg  
C) https://angel.grantham.edu/AngelUploads/QuestionData/1165d578-eea8-4b7f-a14a-451d978e3e30/77635M455434552655S3.jpg  
D) https://angel.grantham.edu/AngelUploads/QuestionData/1165d578-eea8-4b7f-a14a-451d978e3e30/514236146355O4255626.jpg

**18.**

**Factor out the greatest common factor.**4(x + 5)2 + 3(x + 5)4

A) (x + 5)2(3x2 + 30x + 79)  
B) (x + 5)2(3x2 + 79)  
C) 7(x + 5)  
D) 7(x + 5)2

**19.**

**Simplify the expression.**https://angel.grantham.edu/AngelUploads/QuestionData/42c5c0b8-8e19-4faa-94a0-5b8a41182386/34633Y32Y28641611634.jpg

A) 65  
B) https://angel.grantham.edu/AngelUploads/QuestionData/42c5c0b8-8e19-4faa-94a0-5b8a41182386/14446201551264665154.jpg  
C) 77  
D) https://angel.grantham.edu/AngelUploads/QuestionData/42c5c0b8-8e19-4faa-94a0-5b8a41182386/6323466323414U563542.jpg

**20.**

**Find the product.**(4x + 6)(4x - 6)

A) 16x2 - 36  
B) 4x2 - 48x - 36  
C) 16x2 + 48x - 36  
D) 16x2 - 48x - 36

**21.**

**Name the property illustrated.**8(7 + 9) = (7 + 9)8

A) Commutative property  
B) Associative and commutative properties  
C) Distributive and associative properties  
D) Identity and associative properties

**22.**

**Mark the statement as true or false.**The absolute value of any nonzero number is positive.

A) True  
B) False

**23.**

**Rationalize the denominator. Assume all variables represent positive real numbers.**https://angel.grantham.edu/AngelUploads/QuestionData/f03d4e03-4c1f-4214-91f3-7c77fa824d8a/46Y34122212536N5656D.jpg

A) https://angel.grantham.edu/AngelUploads/QuestionData/f03d4e03-4c1f-4214-91f3-7c77fa824d8a/5616331413L453225333.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/f03d4e03-4c1f-4214-91f3-7c77fa824d8a/J2522735432165554C36.jpg  
C) https://angel.grantham.edu/AngelUploads/QuestionData/f03d4e03-4c1f-4214-91f3-7c77fa824d8a/21335251976T35422233.jpg  
D) https://angel.grantham.edu/AngelUploads/QuestionData/f03d4e03-4c1f-4214-91f3-7c77fa824d8a/15N42661J34S44355113.jpg

**24.**

**Solve the equation.**https://angel.grantham.edu/AngelUploads/QuestionData/751583aa-7f1f-49dd-8215-3b5edc1bd909/34254732535664924233.jpg= https://angel.grantham.edu/AngelUploads/QuestionData/751583aa-7f1f-49dd-8215-3b5edc1bd909/3552BY63313246E56466.jpg

A) 4  
B) -12  
C) -4  
D) 3

**25.**

**Perform the indicated operation. Give the answer in lowest terms.**https://angel.grantham.edu/AngelUploads/QuestionData/d1f3cb70-1813-4c28-ad99-e09744f7e50e/4426Z21525161663422I.jpg÷ https://angel.grantham.edu/AngelUploads/QuestionData/d1f3cb70-1813-4c28-ad99-e09744f7e50e/35352446265411511T54.jpg

A) https://angel.grantham.edu/AngelUploads/QuestionData/d1f3cb70-1813-4c28-ad99-e09744f7e50e/72266765N4434U353126.jpg  
B) https://angel.grantham.edu/AngelUploads/QuestionData/d1f3cb70-1813-4c28-ad99-e09744f7e50e/25U6335536Z453346353.jpg  
C) z + 3  
D) https://angel.grantham.edu/AngelUploads/QuestionData/d1f3cb70-1813-4c28-ad99-e09744f7e50e/4176143252D5M5414255.jpg